out into the street **under** the sidewalk. Piercing the first floor right opposite the trench was found a ventilating register 18 by 22 inches. The corner building was sixty feet north and south, two stories, and abutted on a one-story building to the south. **The south second story wall was the one thrown over on the first floor and had collapsed the one story roof. The intact roof section was found over on the street side."**

Because of omissions in the paragraph at the top of Page 38 of the record, the following is a restatement of the first eight lines of that paragraph, with the omitted testimony supplied:

"In my opinion the hole in the pipe was caused by soil corrosion. Examination of the pipe shows that the metal has slowly disappeared until it completely disappeared over the hole and pitches up at the feathered edge. The rest of the pipe shows tuberculation of corrosion products, also deep pitting, **with large areas of the surface pitted.** All this is characteristic of soil corrosion. **Soil corrosion in a pipe of this sort is always spotted. A section of the pipe, usually the pipe itself over most of its length, shows some evidence of corrosion, but in places it will be deep and in other places will be very shallow, as here. I have often seen pipe that you have a hole through completely in one place, the rest of the pipe sound, at least not having a hole through it.** There are characteristic signs of soil corrosion over all portions of the pipe that was below the ground, **some of it deeper than others, with the deepest end most extensive at the elbow * * * ."**

Cross Examination.

Because of substantial omissions and errors in the first and second paragraphs of the cross-examination on Pages 40 and 41 of the record, the following is supplied as a corrected and complete narrative:

"My only degree is in chemical engineering. **I have no degrees in metallurgy or in soils.** Different metals will corrode at a different rate in the same soils, and

the same metal will corrode at different rates in different soils, but the same metal in the same kind of soil will corrode roughly at the same rate. On this particular pipe, there is a different degree of corrosion, **just twenty inches from the hole** in the sense that at one point it is corroded through and at other points it is not corroded through. I did not check the soil outside this building except to look at it. Where a pipe has been buried in the soil for sometime the best indication of the corrosiveness of the soil is the experience of the pipe that has been in that particular soil. Soil corrosion is a complex factor and it is difficult to tell what experience will be obtained, from examination of one particular soil. **The condition of the soil at the point where the break was, was of no importance.** In this particular case, in my opinion, it was irrelevant to determine right at that time the acidity of the soil, the aeration of it, the resistivity, the moisture and all factors having to do with corrosion. The corrosive condition of the pipe was a better indication of the corrosiveness of that particular soil than any chemical investigation of the soil I could have made. I did not take a sample of the soil. All the rest of this pipe is **fairly sound** in the sense that there are no holes in it and it would carry gas. **It is a fairly sound piece of pipe.** If gas is escaping into the adjacent soil from a hole of any size you will find chemical evidence of said gas in the soil. **That is important in determining whether gas from that particular hole is going through the soil.** I investigated that as well as I could. I believe the soil was loam. **I made no further investigation of the soil.** I have no records on the nature of the soil. I took none of the soil back to the laboratory. (The Court refuses to let the witness explain his answer.) I made some tests right at the place where the pipe had been. **I made no record whatsoever of such tests.**

"As compared with sandy soil, loam is not a porous type of soil. It is a sort of clay soil. Such soil will stick to something that it is around **especially if it has been there for some time.** With qualifications, it will happen around a pipe. The corrosive scale will many

times remain on the pipe. **Even when corroded all the way through, I have seen scale still remain there and no evidence of a leak through the pipe. That is particularly helped and aided just like putting a Band Aid or a bandage on something when you have got some sort of an adhesive type soil that holds that in place. I know that it can happen that you can get a shaking of the pipe or something dropping on the pipe and that will shake the soil and cause the scale to shake off, leaving a hole like the one in this pipe. Running a hand down a pipe which is corroded can cause the scale to flake off which otherwise if immobilized, might stay on that pipe for many, many years.** The pipe itself is an indication of the corrosive condition of the soil."

The first sentence of the second paragraph on Page 41 which reads, "There is always a flash with an explosion," should be corrected and supplemented to read, "There is always a flash **and fire** with an explosion. **I have never seen a gas explosion without a flash of fire at the point of accumulation right at the time of the explosion.**"

The seventh sentence of that same paragraph which reads, "An explosion will follow the line of least resistance." should be corrected to read, "**A gas** explosion will follow the line of least resistance."

Because of substantial omissions and errors in the second paragraph on Page 42 of the record, which extends over to the top of Page 43 and completes the cross-examination of the witness, that portion of his testimony, as corrected and supplemented should be as follows:

"In that time, whatever that might be, twenty four hours a day, gas would be coming out of that hole under four pounds per square inch pressure. I knew this building was closed the same way every weekend, not only this weekend, but the weekend before, the weekend before that, the month before that, six months before that. If gas was coming in there on this weekend from that hole, then every weekend for the time that this hole had been in this condition, gas would have gone into that building the same way. Probably at

times it reached dangerous proportions but didn't happen to be ignited. The earth having removed the mercaptan, it would be odorless, or at the most have a stale odor. Even though it had been working the same way every weekend and the thermostat had been going on and off every weekend, it just happened on January 31, 1955, the one weekend out of all the others, the building blew up. It is always characteristic of a hazardous condition that at one time or another, maybe after a considerable period of time, it gets ignited and blows up. I used an explosive meter around where the pipe had been to determine whether there was a residue of gas in the soil. **I said in my deposition that I had no record of the nature of the soil and that I made no further investigation of the soil. I also said in my deposition that I put the meter in cracks in the pavement in four or five places and that we played around a little bit with it. I meant by playing around that I did not test systematically. I now say that I actually made a test with that gadget in the trench but I don't have a record of it. The explosive meter is a standard method for discovering the presence of gas. A very excellent method.** Where the pipe had been the ground had already been disturbed so there was no actual chance of getting a reading. I didn't expect a reading and I didn't get one. I examined the soil and smelled of it, but I couldn't find the dirt that had been in the hole and besides it was saturated with water and you can't make such tests anyway in that case. Even the ground inside the foundation was exposed and was saturated with water and slush and ice. The center of the building was gutted by fire. The scorching on the flooring was not caused by burning embers falling on it. **The wood could have been scorched by any kind of fire.** Parts of the joists underneath the flooring were examined. In a gas explosion the fire will burn back to the point where the gas is entering if there is enough air to allow such. Whether a carbon deposit is left around the openings depends upon the sufficiency of the oxygen. I don't believe there would be any carbon deposit around the openings, perhaps in the immediate vicinity. I didn't find any carbon deposits of this type near the hole and I didn't expect it. There was

no carbon deposit in the earth and you wouldn't expect any there. Outside of the hole, the pipe was pitted in general, but not excessively, according to my deposition. **In making that statement under oath in my deposition I intended it to be a true statement at the time.** Gas will tend to diffuse equally in a space. **Therefore, it will seek to fill a container in equal proportions in all areas of the container and will not concentrate in any one place, given sufficient and considerable time.** In this courtroom it would take about a week for it to diffuse equally. That is assuming that the room is closed off and there is no motion, no people in it."

Re-Cross Examination.

The first sentence on Page 44 of the record under re-cross-examination which reads, "If the person was looking at the area where there was an explosion you could see the flash," should be corrected and supplemented so as to read, **"The very explosion of gas by any ignition will have a flash of fire right then.** If the person was looking at the area where there was an explosion you could see the **fire."**

Further correcting the recross-examination of this witness, the next to the last sentence in the first paragraph at the top of Page 45 reading, "The gas upstairs was in an explosive mixture," should be deleted in its entirety.

DR. FRED KURATA, on behalf of plaintiffs, testified (45-48):

Cross Examination.

Because of substantial errors and omissions in the setting out of the cross-examination of this witness at Pages 47 and 48 of the record, the cross-examination of this witness is being repeated in its entirety with omissions and corrections supplied. Those omissions and corrections are set forth in bold faced type. As corrected and supplemented, the cross-examination is as follows:

"Gas will come in through the foundation of a building and will travel through the ground because ground

is porous. It would go through the ground, up the crawl space, up through the registers and. if the building was air-tight, would stay there. The majority of the gas would remain on the first floor. Gas is so diffusible that it will seek uniformly all four corners of a container and would take a matter of hours to fill the first floor of this building. As gas goes through soil out of a hole under pressure, it dries out that soil. As the soil dries out it becomes a conduit itself. A loam or clay soil will not block off gas like concrete or metal. Sooner or later it would go through the eight inches of soil between a leak and the foundation of the building. It would go through at an increasing rate as the soil became more and more dried out and more and more porous. Once it goes through the soil and dries it out, then it goes through the foundations the same way. Once inside the foundation where there is dry soil, that is more easily penetrated. In reaching my opinion I am assuming that the pipe had been there since 1932 or 1933, and if that date were changed and the pipe had not been in there nearly that long, my opinion would be substantially changed. I don't want to create the impression that a hole this size had been there for five years. It probably started as a pinhole. I think it could have been substantially this size for six months, or maybe longer. During that time there would be a constant leaking of gas through all of that big hole under the ground. There would be a substantial flow into the foundation for six months. This would be going into the building in substantial quantities over a period of twenty four hours every day. If the concrete sidewalk above it was continuous and no cracks and there was no open ground in the immediate vicinity, I would say that a lot of this gas would have been going toward the building while there was a leak, but concrete is not exactly impervious; it is porous, it is masonry. Corrosion with the same type of metal will occur more or less uniformly in the same type of soil in the same immediate vicinity. There are no apparent holes in any of this pipe, but it is severely corroded. Even using a mag-

nifying glass to go up and down the pipe the elbow is the only place where a hole is obvious. I cannot tell whether the pipe, or the elbow, underground had been galvanized. The zinc, if any, would disappear underground. I do not know whether the elbow is the same quality or grade of steel as the pipe itself, but usually these standard pipes and fittings are low carbon steel. **If this pipe was dug up exposing the part that came under the street and if that was inspected no hole would be obvious or visible. You would have to go clear on back and underneath the elbow before you would ever find a visible hole in that pipe.** I have seen pipes carrying gas or water that are not corroded any worse than this pipe, with the exception of the elbow, but when the pipe gets that bad they are usually replaced. **When there is a collapse of a building with a tearing or shearing off of a pipe allowing gas to escape and explode, that gas will burn back to and continue to come out of the broken part of the pipe visible as in a blow torch.** Corrosion is a sort of scaling process and the scales might be held in position against the pipe by the surrounding ground. There would still be a leak. I have never seen a case that the hole was corroded in a pipe that the pipe was leakproof, but it could be a slow leak. It is possible that it would not cause any trouble. Assuming such circumstances, it is possible for a wall to fall on a pipe and shake the corrosion scale loose. It could not happen as long as the pipe was not displaced in the soil. If the soil surrounds the pipe, there is still no place for the corrosion products to go. The electricity in the ground can cause holes in pipes. That type of corrosion is distinct. Usually the edges of holes are not thin, the hole goes in steeply. In any type of corrosion you cannot say that it is either chemical corrosion or electrolytic corrosion, it is all combined in every case of corrosion. I took into consideration electrolytic action when I answered the hypothetical question. I made ample allowance for the electrolytic effect that you are referring to. **If you have an electrolytic process going on, naturally your corrosion will**

be faster. I cannot say how many stray currents have acted on this pipe in a five year period. I could make an estimate, an educated guess. It is physically impossible for anyone to state that any given number of electrolytic currents would have affected that particular pipe. Over a five year period there would be varying kinds of water with varying kinds of mineral acting on the particular pipe. I don't believe I have had any experience with gas pockets with natural gas. I have never had any such experience in all of my training and practical experience."

CLEMONT MCGEE, on behalf of plaintiffs, testified (50-58):

Direct Examination.

The third sentence in the first paragraph on Page 52 which reads, "The fact that there had been a gas explosion and a faulty pipe was no indication that there might have been a leak in that area," should be corrected to read, "The fact that there had been a gas explosion **indicating** a faulty pipe was no indication that there might have been a leak in that area."

The second sentence in the last paragraph on Page 52 reading "The Gas Service Company had exclusive control over the meter and did their own testing and checking of the meter, and they would not permit anyone else to test or check the meter," should be corrected to read as follows, "The Gas Service Company had exclusive control over the meter and did their own testing and checking of the meter, and they would not permit anyone else to test or check the meter **without their permission.**"

The second paragraph on Page 53 should be corrected by the addition of certain omissions, so as to read as follows:

"We tested the **customer** service lines going into Smith's Shoe Shop and Veatch Construction Company by taking a pump and gauge and pumping the line up with fifteen pounds of air. The **customer's service line**

was tested from the meter to our curb line. We turned off the stopcock at the edge of the street and pumped air into the lines at the meter connection."

The first sentence of the fifth paragraph on Page 53 reading, "When we dug up Exhibit 25 it was generally corroded. I saw the corrosion hole," should be corrected to read, "When we dug up Exhibit 25 it was generally corroded. I saw **what I assumed was** a corrosion hole. **I am not an expert on corrosion.**"

The last sentence in the fifth paragraph on Page 53 reading, "Corrosion is a slow process," should be corrected to read, "**I assume** corrosion is a slow process. **I am not qualified authority to say definitely.**"

The last sentence on Page 54 reading, "W[illegible]e find pipe such as the thirty-four feet that we replaced we do not check in the area for other leaks," should be corrected to read, "When we find pipe such as the thirty-four feet that we replaced we do not check in the area **to see what its condition is.**"

Supplementing the question, answer and objection material quoted verbatim at the top of page 55, the following should be inserted in sequence immediately thereafter:

"Q. (By Mr. James) I will ask it this way. When you or the men under your control go into a place like Moreau Street in Tipton and find for one reason or another that you have got thirty-four feet of service line that is so generally corroded that you replace it with new service line, then is it your testimony that you don't make any bar hole tests or any other tests on either side of that service line you replaced on your other lines there in that street to see if there are other leaks in pipe that is as old as that pipe was?

"Mr. Jackson: We object to that, it is the same question, argumentative, improperly quoting the witness' testimony.

"The Court: Overruled.

"A. Yes."

Cross Examination.

The fifth sentence in the first paragraph at the bottom of Page 56 reading "We don't test any customer's line beyond the curbcock and the customer's meter," should be corrected to read, "We don't test any customer's line beyond the curbcock **into** the customer's meter."

The last two sentences in the first paragraph on Page 57 of the record reading, "One of the principal reasons we abandoned that line was because it was so deep that we had to spend so much time digging. By laying it shallower, we could maintain it better," should be corrected and supplemented to read, "**It was buried six to nine feet in the ground.** One of the principal reasons we abandoned that line was because it was so deep **it required an awful lot of** time digging. **The principal part of that 500 feet was getting a more shallow line of four inch main in the alley back of those buildings so that we could maintain it better.**"

The fifth sentence of the second paragraph on Page 57 of the record reading, "After we install free service lines we never maintain them after that period," should be corrected so as to read, "After we **installed** free service lines we never **did** maintain them after that period."

Re-Direct Examination.

The last sentence in the redirect examination on Page 58 of the record reading, "In those instances the customers would pay one dollar for the pipe from the curb to one foot from the building, or if in an alley, from the property line to within one foot of the building," should be corrected to read, "In those instances the customer would pay one dollar for the pipe from the curb line **to the end of the company service,** or, if in the alley, from the property line, **they would pay one dollar for the line to be installed** to within one foot of **their** building."

That portion of the record on Page 61 reading as follows is in error:

"Plaintiff reads from Exhibit 1, being Rules and Regulations governing the distribution of gas in Tipton, Missouri, issued by defendant's predecessor and

approved by the Missouri Public Service Commission, being effective on November 1, 1931, and being in force at the time of the installation of the pipes in question. The following is read to the jury from Section 2, Subsection 2 of said Rules and Regulations:"

Thereafter follows the section and subsection referred to. The foregoing statement is incorrect because the Exhibit shows on its face that Section 2, Subsection 2 of the Rules and Regulations in question were not, as stated, in effect on November 1, 1931, and did not become effective until October 1, 1941, or about ten years later (SR 25). In any event later than the last date mentioned in evidence for the installation of the service line involved.

DEFENDANT'S EVIDENCE.

VANSTON H. RYAN, on behalf of defendant, testified (66-73):

Direct Examination.

At the bottom of Page 66 of the record immediately after the phrase "but it would diffuse through those registers," the following sentence should be inserted to supplement the testimony **"It would not stay under the floor. It would diffuse rather rapidly."**

Supplementing the last sentence of the first paragraph at the top of Page 67 of the record ending, "* * * and after that the gas would come out just like it had been put in the pipe," should be amended and changed to read "* * * and after that the gas would come out just like it had been put in the pipe, **including the odorant."**

The second paragraph on Page 67 of the record should be supplemented by inserting after the third sentence reading, "The gas would pass more rapidly through that soil then," the following sentence, **"The soil eventually would act as a pipe for the gas."**

The third paragraph on Page 67 of the record should be supplemented by inserting after the sentence in parenthesis reading "(Objection that the doctor did not have

sufficient facts, including whether or not the building was open or closed, etc.)" the following sentence, **"It would not take six months for an explosive mixture to accumulate in the building."**

The next to the last sentence on Page 67 ending "* * * would reach an explosive mixture and then eventually reach a non-explosive mixture when it went above the explosive range," should be amended so as to read, "* * * would reach an explosive mixture and then eventually reach a non-explosive mixture when it went above the explosive range, **where it would burn."**

The first sentence on Page 68 of the record ending, "* * * that will ignite the gas which is above the explosive range and it will burn," should have inserted immediately thereafter to supplement the testimony the following sentence, **"It would then go back to ignite the source where it would burn."**

The sixth sentence in the second paragraph on Page 68 reading, "To anyone observing a gas explosion he would see a flash," should have inserted immediately thereafter, **"There cannot be a gas explosion without a visible flash of fire."**

The following sentence should be added to the end of the second paragraph on Page 68 of the record, **"This could never occur in as long as three minutes."**

The last paragraph on Page 69 of the record should be amended and corrected by changing the second sentence reading, "Gas is a sharper noise, a blasting effect, and if there had been an explosion there would have been flames," so as to read, "Gas is a sharper noise, a blasting effect, and if there had been an explosion there would have been flames, **which would have been noticed by any casual observer. It does not have any of these earmarks."**

Immediately following the last full sentence at the bottom of Page 69 of the record, the following sentence should be inserted, **"Fire will be observed immediately upon a gas explosion."**

At the top of Page 72 and immediately following the last sentence of the first paragraph ending, "* * * it would burn almost instantaneously with the explosion above because

of the opening," the following sentence should be inserted, **"You cannot have two separate explosions."**

DR. CHARLES LEUBBERT, on behalf of defendant, testified (74-76):

Direct Examination.

At the top of Page 75 of the record the second sentence of the last paragraph of direct examination reading, "That was on the second floor," should be corrected to read, "That was on the second floor **against the east wall of the west building."**

Immediately before the last sentence in that same paragraph on Page 75, the following sentences should be inserted, **"It looked like a torch blaze. We were not able to put it out."**

LONNIE BELL, on behalf of defendant, testified (76-77):

Direct Examination.

The first sentence of the direct examination of this witness on Page 76 of the record reading, "I have lived in Tipton, Missouri, since 1931," should be changed to read, "I have lived in Tipton, Missouri, since **1939."**

The third paragraph of the witness' testimony contains the following comment:

> "* * * (objection sustained to question: 'Did you see where there had been digging done there, as to underneath the ground?')"

which should be changed to read:

> "* * * (objection **overruled** to question: 'Did you see where there had been digging done there, as to underneath the ground?')"

Cross Examination.

At the bottom of Page 76 of the record, immediately after the identification of Exhibit 32, the following sentence should be added, **"I do not know whether the telephone company had moved out of the upstairs part of the building when I moved in."**

At the top of Page 77 of the record the second sentence reads, "That is true." Since the witness did not so testify, this sentence should be deleted from the record.

Immediately following the third sentence at the top of Page 77 of the record reading, "I don't know when the service pipe was put in," the following sentence should be inserted, **"The meter was out there when I moved into the building."**

DEFENDANT'S EXHIBIT 1, PAGE 1.

Rules and Regulations for the Distribution of Gas Service in Tipton, Missouri.

FORM NO. 24

P. S. C. MO. No. 1

Cancelling P. S. C. MO. No. _____

No supplement of this tariff will be issued except for the purpose of cancelling the tariff.

~~Interstate Gas Company~~
~~Central Distributing Company~~
~~Central States Gas Service Company~~

name of corporation or municipality

The Gas Service Co. Case #11058 - May 21, 1947
adoption Notice - Oct. 1, 1947

Rules and Regulations

~~SCHEDULE OF RATES~~

FOR

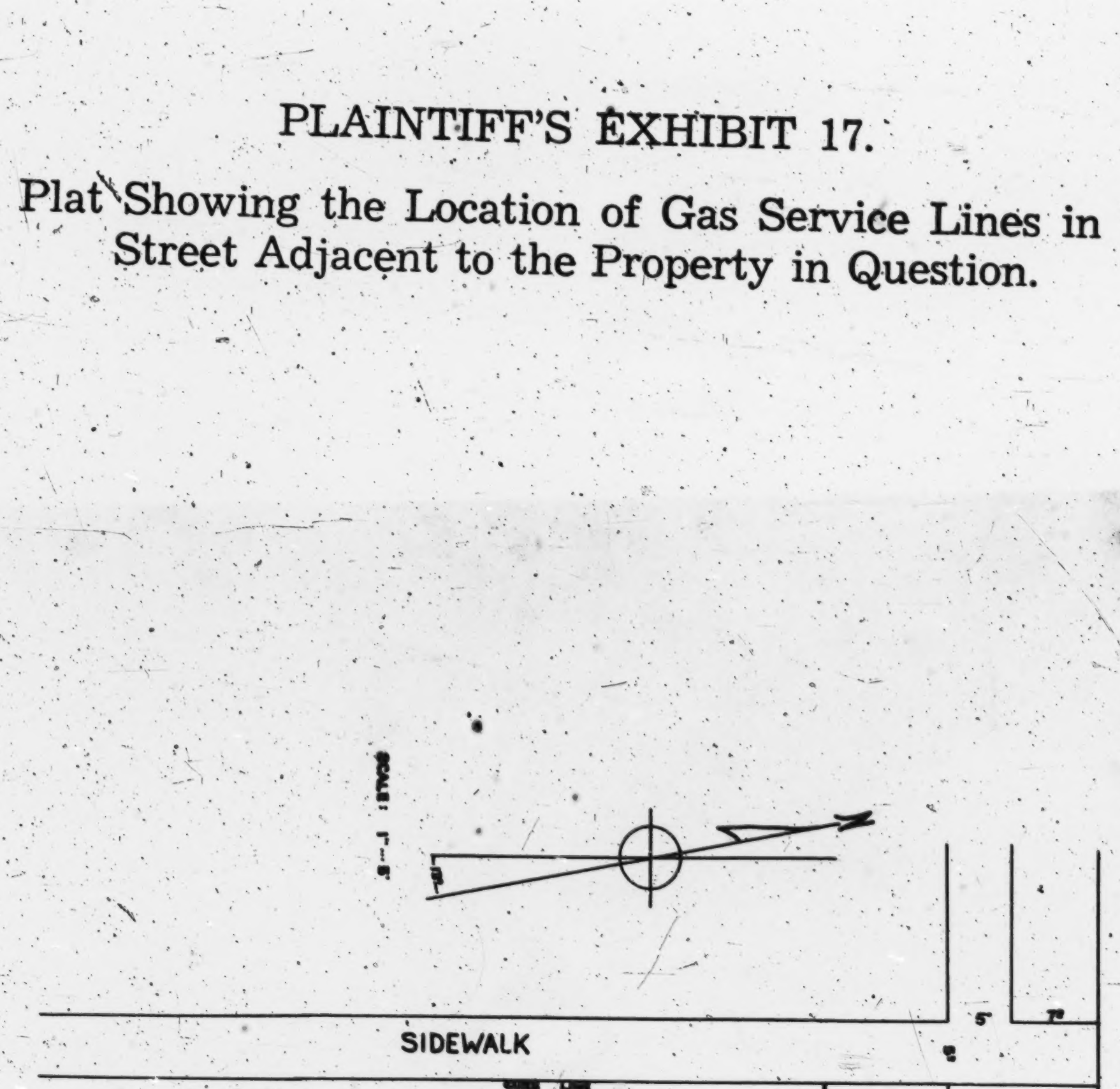
GAS

RECEIVED
NOV. 4, 1931
David P. Janes, Sec.
Public Service Com.

Rules and Regulations
10,366
ce. - Nov. 30, 1943

PLAINTIFF'S EXHIBIT 17.

A Plat Showing the Location of Gas Service Lines in the Street Adjacent to the Property in Question.



Central-Distributing-Company
Central-States-Gas-Utilities-Co.
Interstate Gas Co. Case No. 10,366
Adoption Notice - Nov. 30, 1943
Rules and Regulations

name of corporation or municipality

The Gas Service Co. Case #11058 - May 21, 1947
adoption Notice - Oct. 1, 1947

Rules and Regulations

SCHEDULE OF RATES

FOR

GAS

RECEIVED
NOV. 4, 1931
David P. Janes, Sec.
Public Service Com.

APPLYING TO THE FOLLOWING TERRITORY Belton, Blue Springs, Centerview, Clarksburg, Grandview, Houstonia, Martin City, Palmyra, Pilot Grove, Raytown, Tipton, Windsor
Fayette - Case 8201 - 10/16/32
Hickman Mills - Case 8244 - 11/29/32

FILED
DEC. 21, 1931
By L. H.
PUBLIC SERVICE COM.
OF MO.

ISSUED Aug. 7, 1931
month day year

EFFECTIVE Nov. 1, 1931
month day year

BY sgd. B. N. Bay Vice-Pres.
name of officer title

101 West 11th St., Kansas City, Mo.
address of officer

CANCELLED
JAN 1 1952
By Gas Service Co
PUBLIC SERVICE COM.
OF MO.
P.S.C. MO. NO. 1
Rules and Regulations
See Co's. Dec. 10 1951
Correspondence

DEFENDANT'S EXHIBIT 1, PAGE 4.

FORM NO. 13 P.S.C. MO. No. 1 {Original / Revised} SHEET No. 4 of 13

Cancelling P.S.C. MO. No. {Original / Revised} SHEET No.

Central States Gas Utilities Company
Name of Issuing Corporation or Municipality

For All Towns & Communities Shown on Cover Sheet
Community, Town or City

CANCELLED
JAN 1 1952
By Gas Service Co.
PUBLIC SER. COM.
OF MO.
P.S.C. Mo. No. 1
Rules & Regulations

RULES AND REGULATIONS GOVERNING THE DISTRIBUTION AND SALE OF GAS - Continued.

7. Service Lines. The service line shall be connected to the company line at curb or lot line and shall be constructed, tested and approved in accordance with the rules and regulations established by the company.

8. No Additional Service Lines. No additional tap shall be made, service line laid, or meter set for gas service to a garage, stable or other building on any lot where there already exists a service line to the residence or main building of the customer.

9. Customer Responsible for Maintenance of Lines. All service and house lines from the curb or lot line shall be kept and maintained in good condition by the customer or owner. When leaky or hazardous conditions of the service or house lines are found, repairs shall be made promptly by the customer or owner.

10. No customer Shall Sell to Another. The company will furnish each customer with a meter, which shall be and remain property of the company and the customer shall not supply or sell gas delivered through his meter for use in any premises not served by such meter according to the records of the company covering such meter installation..

11. Service From High Pressure Mains. When the company has no low or

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11. Service From High Pressure Mains. When the company has no low or intermediate pressure mains available and it is desired to supply a customer from a high pressure line, the customer shall, at his own expense, provide suitable regulator or regulators, for reducing the pressure from high pressure line to the pressure of utilization. The customer shall also arrange to have such regulator or regulators installed in accordance with the plans furnished by the company, and shall pay all expenses incident to such installation. Regulators and meters set in accordance with the company's approved plans must be located immediately adjacent to the company's main line. The customer shall, at his own expense, provide suitable substantial covering for regulators and meters, so that they may be protected from the weather and from disturbances by animals running loose on the premises. The customer shall maintain such regulator or regulators in good repair and in proper condition at all times. The company shall provide and install suitable pressure-tight safety device to be connected on the outlet of meter at the expense of the customer, to protect customer's service from excessive pressures.

12. Precautions to be Taken by Customers. A customer shall take due care to prevent any waste of gas. In case of detection of a leak within his premises, the customer shall immediately shut off the gas at the meter, extinguish all light flames, or fires within the premises, open all doors and windows to permit the escape of gas, at once notify the company by

DEFENDANT'S EXHIBIT 1, PAGE 7.

FORM No. 13 P.S.C. MO. No. 1 1st {Original / Revised} SHEET No. 7

Canceling P.S.C. MO. No. 1 {Original / Revised} SHEET No. 7

Central Distributing Company
Name of Operating Corporation or Municipality

For All Towns & Communities shown on Cover Sheet
Community, Town or City

RECEIVED
AUG. 30'41
MISSOURI
Pub.Serv.Com.

RULES AND REGULATIONS GOVERNING THE DISTRIBUTION AND SALE OF GAS - Continued

Section II - Physical Property.

For the purpose of setting forth the conditions necessary for adequacy and safety of gas service and supply, the company makes effective the following rules and regulations governing the installation of service lines, piping, installations and connections, by any plumber, gas fitter, patron, customer or owner requiring gas service from the company, and the owner will be responsible for compliance with such rules and regulations as the physical conditions require before service may be obtained from the company.

1. Application for Service. Application for gas service connection shall be filed with the company before tap will be made or meter supplied.

2. Service Lines. The service line shall be of standard weight pipe of a size to be determined by the company but in no case less than 1 ¼" and shall be connected to the company line at curb or lot line with a Dresser type coupling, which shall be equal in design and workmanship to those produced by the S. R. Dresser Co. Service line shall preferably be installed in a straight line at right angles to the front or rear property line. Where conditions do not permit this, only ninety degree (90 degree) turns shall be used so that all portions of the service line will be either parallel to or at right angles to the front or rear property line. The service line from property line to meter location shall be part of the property and shall be installed and maintained at the property owner's expense, but its use as a gas service line will be subject to the [illegible] and the approval of the company. The owner may have such line

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For the purpose of setting forth the conditions necessary for adequacy and safety of gas service and supply, the company makes effective the following rules and regulations governing the installation of service lines, piping, installations and connections, by any plumber, gas fitter, patron, customer or owner requiring gas service from the company, and the owner will be responsible for compliance with such rules and regulations as the physical conditions require before service may be obtained from the company.

1. Application for Service. Application for gas service connection shall be filed with the company before tap will be made or meter supplied.

2. Service Lines. The service line shall be of standard weight pipe of a size to be determined by the company but in no case less than 1 ¼" and shall be connected to the company line at curb or lot line with a Dresser type coupling, which shall be equal in design and workmanship to those produced by the S. R. Dresser Co. Service line shall preferably be installed in a straight line at right angles to the front or rear property line. Where conditions do not permit this, only ninety degree (90 degree) turns shall be used so that all portions of the service line will be either parallel to or at right angles to the front or rear property line. The service line from property line to meter location shall be part of the property and shall be installed and maintained at the property owner's expense, but its use as a gas service line will be subject to the inspection and the approval of the company. The owner may have such line installed by any competent gas fitter or employee of the property owner competent to do such work, subject to inspection, test, and approval by the company before the line is covered outside or inside of the building.

Each building served with gas shall have a separate service line. A service run to a building having more than one meter shall branch into individual services outside the foundation wall, each service being equipped with a stop cock. These cocks shall be placed in the service lines immediately outside the foundation wall, if accessable, so located that the flat head of the core shall be parallel to the street when in the "off" position. In case a meter room is available, however, the service shall enter the foundation wall and branch inside the meter room, a single stop cock being installed at curb or property line. In the latter case the company shall furnish the master cock and box.

FILED
SEP. 27, 1941
Public Service Commission

CANCELLED
JAN 1, 1952
By Gas Service Co.
P.S.C. Mo. No. 1
Rules & Regulations
PUBLIC SERV. COM. OF MO.

DATE OF ISSUE August 20, 1941 (month day year) DATE EFFECTIVE Oct. 1, 1941 (month day year)

ISSUED BY Sgd. Wallace Gilrey (name of officer) President (title) (address)

BOONVILLE PRINTING CO.

DEFENDANT'S EXHIBIT 1, PAGE 9.

FORM NO. 10 P.S.C. MO. No. 1 {Original / Revised} SHEET No. 9 68-69

Cancelling P.S.C. MO. No. ____ {Original / Revised} SHEET No. ____

Central States Gas Utilities Company
Name of Issuing Corporation or Municipality

For All Towns & Communities Shown on Cover Sheet
Community, Town or City

RULES AND REGULATIONS GOVERNING THE DISTRIBUTION AND SALE OF GAS - Continued.

6. Owners Shall Maintain Own Lines Satisfactorily. All service and house lines and fixtures from the curb or lot line installed at the expense of the owner or customer shall be kept and maintained in condition satisfactory to the company. When inspected and found in leaky or hazardous condition the gas will be shut off until repairs are made.

7. Size of House Piping. The minimum in size and maximum in length of house piping shall be governed by the number of 3/4" openings to be supplied, as follows:

Number of 3/4" Openings	Feet of Pipe Permitted				
	3/4 In.	1 In.	1¼ In.	1½ In.	2 In.
1	40	75	100	150	200
2	20	70	100	150	200
3	10	40	100	150	200
4		25	65	150	200
5		20	45	115	200
6			35	80	200
7			25	60	200
8			20	45	200
9				35	160
10				25	120
12				20	90
15					65

CANCELLED
JAN 1, 1952
By Gas Service Co.
PUBLIC SERVICE COM.
OF MO.
P.S.C. MO. NO. 1
Rules & Regulations

6. Owners Shall Maintain Own Lines Satisfactorily. All service and house lines and fixtures from the curb or lot line installed at the expense of the owner or customer shall be kept and maintained in condition satisfactory to the company. When inspected and found in leaky or hazardous condition the gas will be shut off until repairs are made.

7. Size of House Piping. The minimum in size and maximum in length of house piping shall be governed by the number of 3/4" openings to be supplied, as follows:

Number of 3/4" Openings	Feet of Pipe Permitted				
	3/4 In.	1 In.	1¼ In.	1½ In.	2 In.
1	40	75	100	150	200
2	20	70	100	150	200
3	10	40	100	150	200
4		25	65	150	200
5		20	45	115	200
6			35	80	200
7			25	60	200
8			20	45	200
9				35	160
10				25	120
12				20	90
15					65
20					35
25					20

CANCELLED
JAN 1, 1952
By Gas Service Co.
PUBLIC SERVICE COM.
OF MO.
P.S.C. MO. NO. 1
Rules & Regulations

Opening left in house piping for furnace connection shall not be less than 1 1/4".

Each 1 in. opening shall be counted as two (2) 3/4 in. openings.
Each 1¼ in. opening shall be counted as three (3) 3/4 in. openings.
Each 1½ in. opening shall be counted as four (4) 3/4 in. openings.
Each 2 in. opening shall be counted as seven (7) 3/4 in. openings.

No piping or opening smaller than 3/4" shall be allowed for any purpose except for mantels, grates, small heating appliances (for heating space not to exceed 1,728 cubic feet), and for bunsen type burners as used by doctors, dentists and laboratories. Twenty (20) feet of 1/2" pipe may be run for one such opening and two (2) 1/2" openings shall be considered equivalent to one (1) 3/4" opening. For piping installed to supply hotel,

DATE OF ISSUE Aug. 7, 1931 (month, day, year) DATE EFFECTIVE Nov. 1, 1931 (month, day, year)

ISSUED BY Sgen. B. N. Bay, Vice Pres. 101 West 11th Street, Kansas City, Mo. (name of officer, title, address)

REGISTER PRINTING CO.

Pltf's Ex. 2
9-1-56 HB.

17

MONITEAU STREET

SIDEWALK

SIDEWALK

46'

MOREAU STREET

SIDEWALK

FACTORY BLDG.

CONCRETE PATCH

NEW BLDG LINE

FILED

EARL R. PRIEGEL
L.S. 36

PLAINTIFFS' EXHIBIT 23, PAGE 2.

Deed Dated November 9, 1942, for the West Twenty-Two Feet, or the Hilgert Building.

TO HAVE AND TO HOLD the premises aforesaid, with all and singular the rights, privileges, appurtenances and immunities thereto belonging or in anywise appertaining, unto the said part Y of the second part, and unto his heirs and assigns, forever; the said

--Grantor--

hereby covenanting that he is lawfully seized of an indefeasible estate in fee in the premises herein conveyed; that he ha s good right to convey the same; that the said premises are free and clear of any incumbrances done or suffered by him or those under whom he claim, and that he will WARRANT AND DEFEND the title of the said premises unto the said part Y of the second part, and unto his heirs and assigns forever, against the lawful claims and demands of all persons whomsoever.

Except taxes assessed for and due in year 1943 and thereafter.

Subject to rightsof United Telephone Co. in a lease ~~xxxxxxxxxx~~ on part of said real estate, if any.

thereafter.

Subject to rights of United Telephone Co. in a lease ~~xxxxxxxxxx~~ on part of said real estate, if any.

In Witness Whereof, The said party of the first part has hereunto set his hand and seal the day and year first above written.

J. W. Hilgert (SEAL)

(SEAL)

(SEAL)

(SEAL)

(SEAL)

(SEAL)

(SEAL)

(SEAL)

(SEAL)

(SEAL)

(SEAL)

(SEAL)

Signed, Sealed and Delivered in Presence of Us: